

APPLICANT(S): WIEGERT, Jens  
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#### AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. (Currently amended) An apparatus Apparatus for the processing of a sectional image (I) that is reconstructed from X-ray projections of an object from different directions, the apparatus being adapted programmed to execute the following steps: a) segmenting at least one segmented area from the sectional image, where the reconstructed X-ray density within said at least one segmented area lies within a given density interval; determination b) determining of a baseline function (B) that describes spatially slowly varying artifacts of the sectional image (I) based on the data of said at least one segmented area; b) c) calculating a corrected image (I\*) by compensating the original sectional image (I) with the help of said baseline function (B).
2. (Currently amended) An apparatus Apparatus according to claim 1, characterised in that wherein the sectional image (I) represents a three-dimensional volume, and that the corresponding three-dimensional baseline function (B) is composed of separate two-dimensional baseline functions that are calculated for two-dimensional slices of the sectional image (I).
3. (Cancelled)
4. (Currently amended) An apparatus Apparatus according to claim 3-1, characterised in that wherein the baseline function (B) is determined by fitting a parametric model function to the data in the segmented areas (M).
5. (Currently amended) An apparatus Apparatus according to claim 4, characterised in that wherein the parametric model function is a spline function and/or or a polynomial, preferably a polynomial of sixth degree.

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6. (Currently amended) An apparatus Apparatus according to claim 3 1, characterised in that wherein the baseline function is determined by low-pass filtering of the data in the segmented areas (M).

7. (Currently amended) An apparatus Apparatus according to claim 1, characterised in that wherein the baseline function is determined by a) spectral analysis of the sectional image (I) or the segmented areas (M) of the sectional image; b) composition of the baseline function from only the lower frequency components of the resulting spectrum.

8. (Currently amended) An apparatus Apparatus according to claim 1, characterised in that wherein image areas outside the object are segmented and excluded from the correction with the baseline function (B).

9. (Currently amended) An apparatus Apparatus according to claim 1, characterised in that it comprises comprising a rotational cone beam X-ray device for the generation of X-ray projections of an object.

10. (Currently amended) A method Method for the processing of a sectional image (I) that is reconstructed from X-ray projections of an object from different directions, comprising the following steps the method comprising: a) segmenting at least one segmented area from the sectional image, where the reconstructed X-ray density within said at least one segmented area lies within a given density interval; -a) b) determination determining of a baseline function (B) that describes spatially slowly varying artifacts of the sectional image (I) based on the data of said at least one segmented area; b) c) calculating a corrected image (I\*) by compensating the original sectional image (I) with the help of said baseline function (B).